

# RouterOS 3G Modem Applications

Arnis Riekstiņš  
MikroTik, Riga, Latvia

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# Why 3G/GPRS?

- WiFi or wired Internet is not available
- Backup link, if the main link fails
- Out-of-band management of router systems
- Sending SMS from the router
- Receiving SMS and executing scripts
- 3G becomes faster and Internet access is more affordable

# Main Link over 3G/GPRS

- Rural areas w/o Internet access
- Public transport
- In your car
- On your yacht
- While traveling



# USB Dongle and RB411U



# 3G mPCle Module and RB411U



- OPTION GTM378
- Sierra Wireless
  - MC8780, 8781
  - MC8775
- See [wiki.mikrotik.com](http://wiki.mikrotik.com) supported 3G cards





# Configuring the PPP

**Interface <ppp-out1>**

General	PPP	Status	Traffic
Name: <input type="text" value="ppp-out1"/>			
Type: <input type="text" value="PPP Client"/>			
Port: <input type="text" value="usb2"/> 			
APN: <input type="text" value="internet"/> 			
PIN: <input type="text" value="****"/>			

# Configuring the PPP (2)

Interface <ppp-out1>

General	PPP	Status	Traffic
<p>User: <input type="text" value="amigo"/></p> <p>Password: <input type="password" value="*****"/></p> <p>Remote Address: <input type="text" value="212.93.97.200"/> ▲</p> <hr/> <p><input type="checkbox"/> Dial On Demand</p> <p><input checked="" type="checkbox"/> Add Default Route</p> <p><input checked="" type="checkbox"/> Use Peer DNS</p>			

# Sending SMS from Router

- Command line example to send an SMS:
  - `/tool sms send usb2 "29111222" channel=0 message="Help!"`
- In RouterOS V4, SMS can be sent while the port is used by other service (PPP or terminal)



# Receiving SMS

- Turn on receiving the SMS
  - specify “port” and “channel”
  - set “secret” (required)
  - set “allowed-number” (optional)
- Received SMSs are stored in /tool sms inbox
- SMS message format
  - :cmd SECRET script NAME [[ VAR[=VAL] ] ... ]

# Troubleshooting GPRS

- **Can you talk to the modem at all?** Try using serial terminal to talk to the modem!
- **Is the SIM card requiring the PIN?** Disable PIN request, or, enter PIN! (RouterOS V3.24 and later)!
- **Consult MikroTik WiKi** and any 3G/GPRS AT Command Reference!

# Thank you!